

# Community Buy-In

## ■ Volunteers, volunteers, volunteers

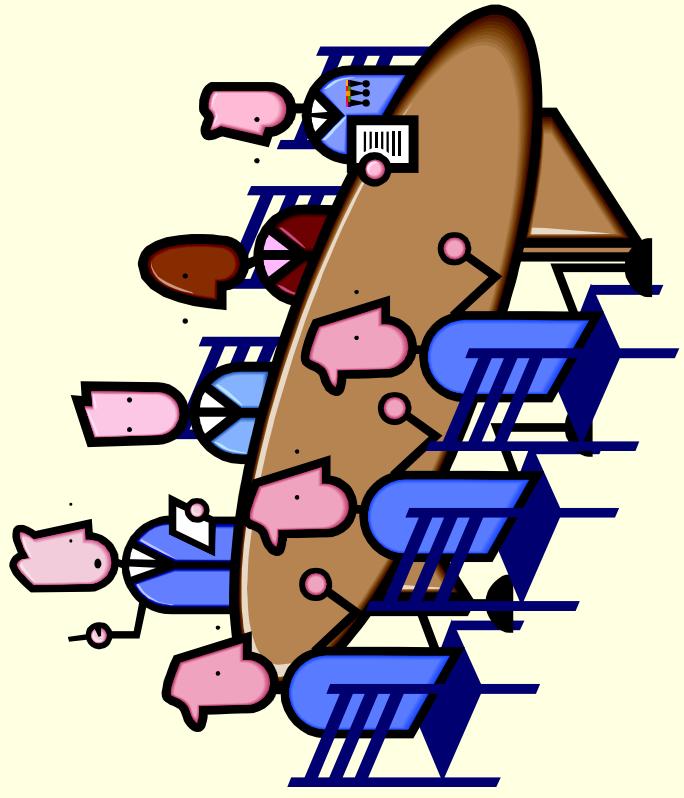
- Clean-Ups
- Stenciling
- Tree Planting



# Community Ownership

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- Stormwater Advisory Committee (SWAC)
  - Staff (City, P&Z, B.I., GMWSS, Parks, EMA)
  - Developers / Homebuilders
  - Contractors
  - Elected Officials
  - Citizens / Citizen Groups
  - Georgetown College
  - NRCS
  - Industry



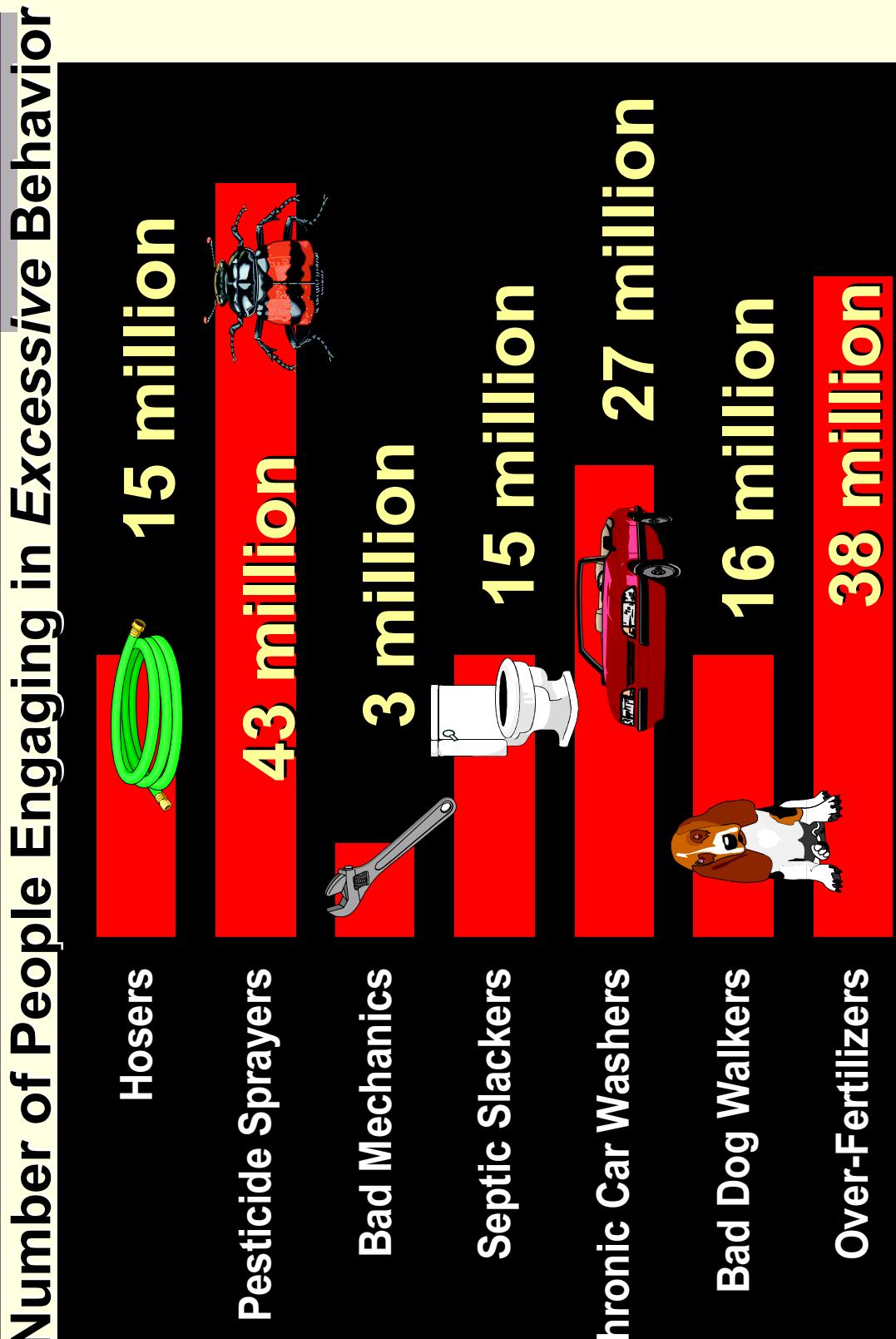
## MCM 3: ILLICIT DISCHARGE, DETECTION AND ELIMINATION (IDDE)

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- **Illicit Discharge:** any discharge to an MS4 that is not composed entirely of storm water.
- **Sources:** illegal dumping, broken lines, cross connections, floor drains, SSOs, I&I, straight pipes, poor septic systems etc.

# Understanding How You Might Contribute to the Problem



# IDDE PROGRAM REQUIREMENTS

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- Storm sewer map
- Regulatory mechanism – ordinance
- Plan to detect and address problems
  - What, when, and how to inspect
  - Sampling and analysis
  - Tracking and correcting problems
- Education
- Goals

FYI! - Kentucky Environmental and Public Protection Cabinet is promoting supplementing a IDDE Program with an aggressive Recycling Program!

# WHAT THIS MEANS TO YOU

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- Long-term continuous effort
- Equipment and testing needs
- Staffing
  - Field
  - Office
  - Hotline
- Analysis
- Training
- Enforcement



# MCM 4: Construction Site Issues

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- Erosion Prevention and Sediment Control
  - Ordinance for Single Lot Erosion Control
  - Development review / enforcement by GSCPC
- Other Pollutants



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- Erosion Prevention and Sediment Control
- Other Pollutants



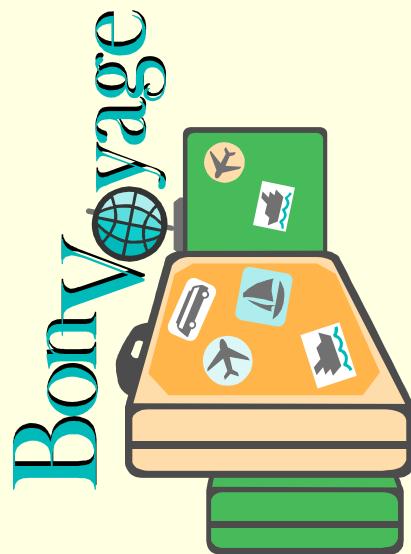
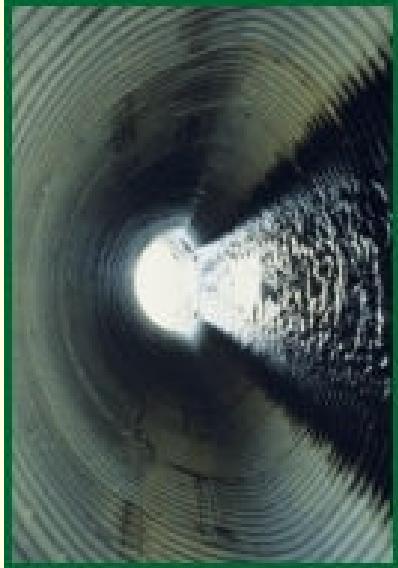
## MCM 5: POST-CONSTRUCTION STORM WATER MANAGEMENT PROGRAM

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- Update of Master Plan and environmental review procedures
- Development of storm water design standards and ordinance
- Process for review and approval of storm water plans for new development
- Post-construction BMP maintenance, tracking, and inspection
- Penalty provisions for non-compliance
- Training and education

# Past Practices of Stormwater Management

- Identify it
- Collect it
- Route it
- Forget it



# Current Trends

- Identify it
- Collect it
- Detain it
- Match peak
- Clean it
- Route it
- Forget it



# POST-CONSTRUCTION IMPACTS ON STORM WATER

- Increases:
  - Impervious surface area
  - Storm water volume
  - Storm water velocity
  - Pollutant deposition
- Consequences:
  - Increased rate and severity of flooding
  - Increased stream erosion
  - Increased sedimentation
  - Increased chemical pollution
  - Altered biological populations
  - Riparian habitat degradation
  - Increased stream temperatures
- Decreases:
  - Water quality
  - **Ground water recharge**
  - Baseflow
  - Natural drainage systems

# Post-Construction Management

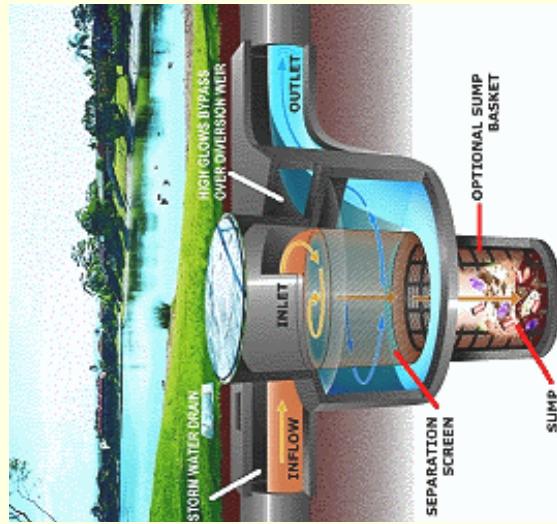
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- Water quantity
- Water quality
- Groundwater recharge
- TSS removal
- Oil and Grease
- Floatables
- BMPs
- Structural vs non-structural controls
  - Riparian buffers
- Operation and Maintenance

FYI! - Georgetown is recognized statewide for the progressive  
and comprehensive Post-Construction Water Quality  
Ordinance

# WHAT THIS MEANS TO YOU

- Long-term continuous effort
- Increased costs to implement BMPs in capital projects
- Staffing
  - Expanded plan review requirements
  - Operation and maintenance management
  - Training and education
- Employees
- Contractors
- Property owners
- Enforcement



# WHAT THIS MEANS TO THE COMMUNITY

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- Change in development philosophy
  - Focus on storm water quantity AND quality
  - Larger emphasis on environmental aspects of development
  - Low impact development
- Assignment of long-term maintenance responsibilities
  - Municipality responsible for public facilities
  - Homeowners or businesses responsible for private facilities
  - Municipality still responsible for education, tracking, and enforcement

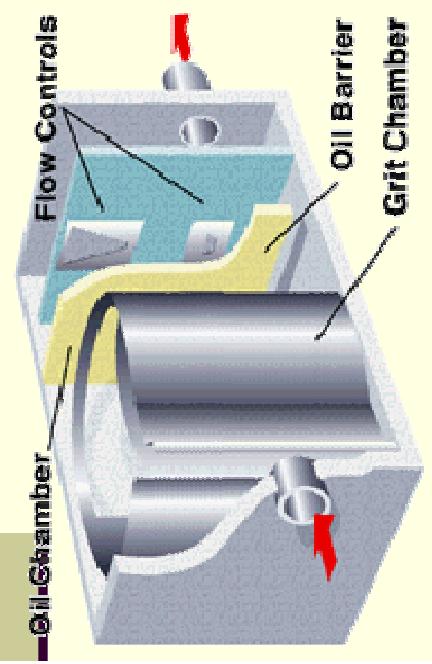
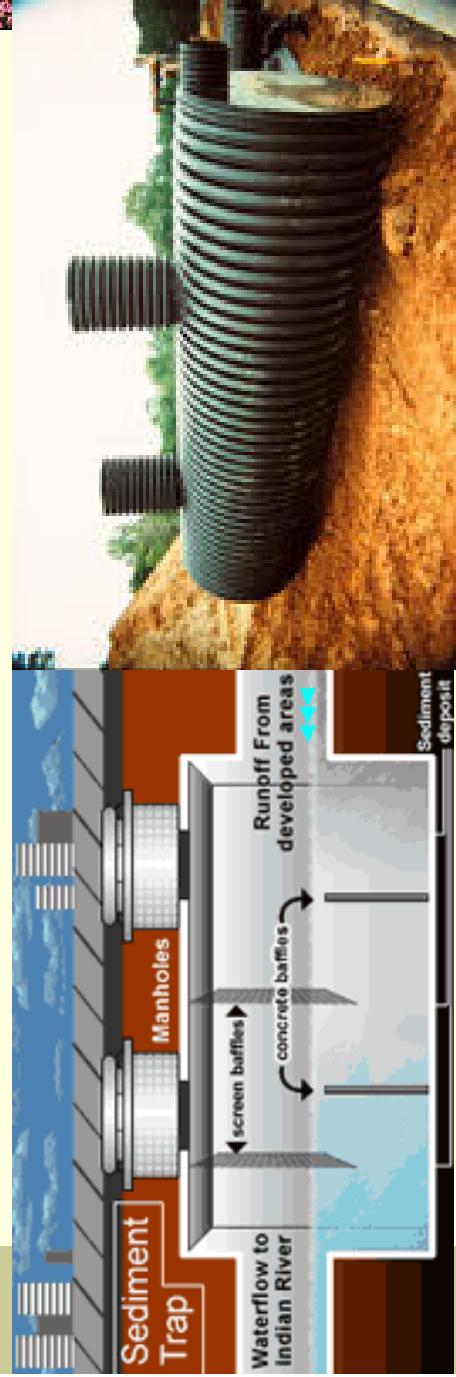
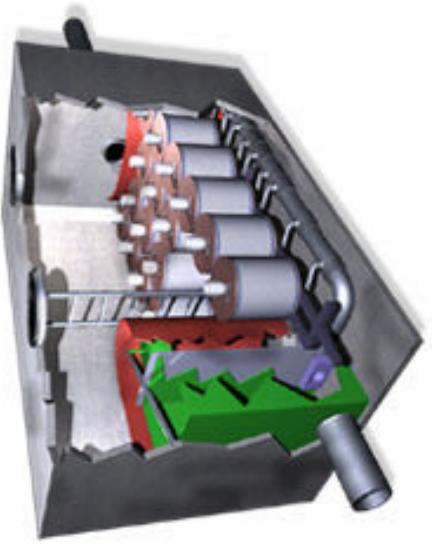
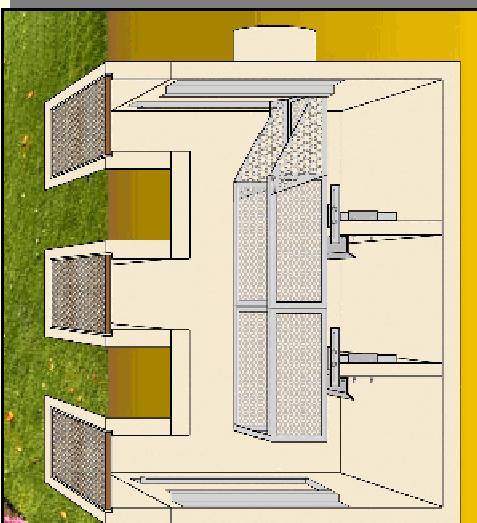
# Opportunities – Proprietary Units

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- Point of discharge
- Flow through separation
- Many/most do a good job
- No Volume reduction
- No Peak reduction
- Maintenance? Yes, must be scheduled and checked frequently to avoid failure
- Most are out of sight and therefore easy to forget about
- Costly

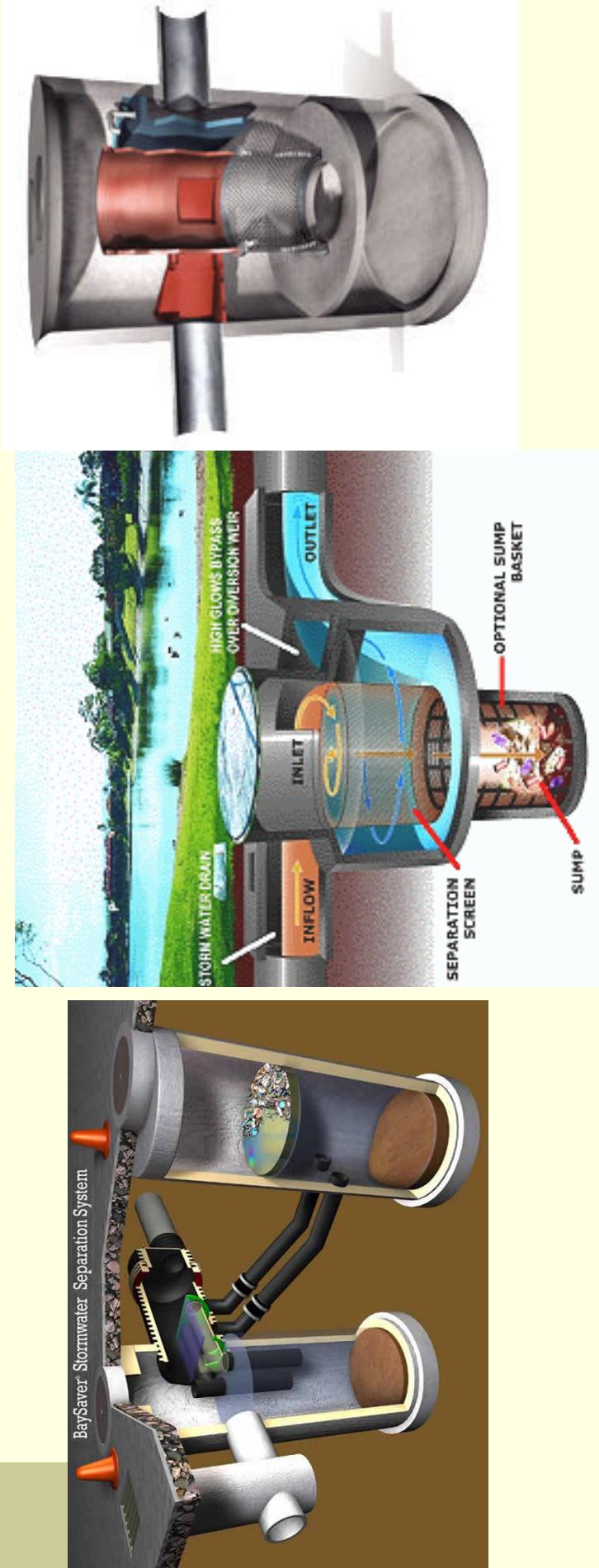
# Examples – Vault Type

- Increasing size and complexity...and cost
- Water quality only, need additional BMP for quantity control



# Examples – Manhole Type

- Increasing size and complexity...and cost
- Water quality only, need additional BMP for quantity control



## Examples – Underground Detention

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- Increasing size and complexity...and cost
- Water quantity only, need additional BMP for quality control



# What can you do?

**Opportunities – Low Impact Development (LID); on site treatment**



**Adopt new design practices**

- **Soak** it in
- **Sift** it out
- **Slow** it down
- **Spread** it on the ground
- **Settle** it out